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| EXAMINER | |
|---|---|
| CARTER, WILLIAM JOSEPH | |
| ART UNIT | PAPER NUMBER |
| 2875 | |
| MAIL DATE | DELIVERY MODE |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/556,004 | VERSTRAETEN ET AL. | |
| | Examiner | Art Unit | |
| | WILLIAM J. CARTER | 2875 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *20 June 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *08 November 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Claim Objections*

Claim 7 is objected to because of the following informalities:

In claim 7,"the cooling power" lacks antecedent basis.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1 and 3-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moroi et al. (4,630,182) in view of Kai et al. (6,784,601).

With respect to claims 1 and 3-10, Moroi teaches high-pressure discharge lamp (1, column 2, lines 31-33) comprising: a discharge tube (1) including electrodes (1c and 1d); electrode lead-throughs (narrow portions of tube 1) connected to the electrodes (Fig. 2); a reflector (2); and a cooling device (15), wherein the cooling device comprises at least one pair of ducts (15) which guide a cooling gas flow (arrows in Fig. 2) onto portions of the electrode lead-throughs (Fig. 2) of the discharge tube (1), so that portions are more strongly cooled than further portions (portions within 1a and 1b) of the electrode lead-through; several ducts (15) are arranged in front of the reflector (2), one duct (132) is arranged in a neck of the reflector (Fig. 4), the discharge tube (1) is

surrounded by two sleeve sections (102 and 132) into which cooling gas flows (arrows in Fig. 4) can be introduced (Fig. 4); and a projection system (Fig. 1). In the embodiments discussed above, Moroi does not explicitly teach the cooling device comprising a nozzle, cooling gas flows being introduced into the sleeve from mutually opposed directions; and a cooling power is controlled by a control unit so as to observe given operational parameters. But Moroi does teach replacing the ducts with nozzles (column 4, lines 59-63). It would have been obvious to one ordinary skill in the art, at the time of the invention, to use the nozzles to replace the ducts, in order to provide a larger flow rate of air (column 4, lines 59-63). Moroi also teaches cooling gas flows being introduced into the lamp from mutually opposed directions (Fig. 2). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to reverse the gas flow, in order provide more cool air for greater cooling (column, line 59-column 5, line 25). Moroi also teaches a cooling power is controlled by a control unit so as to observe given operational parameters (column 1, 36-39). It would have been obvious to one ordinary skill in the art, at the time of the invention, to use the control unit in the embodiments shown in Fig. 1-4, in order to save energy by only activating the fan when the lamp reaches a particular temperature (column 1, lines 36-39). As for claims 6, 8, and 9, Moroi does not explicitly teach the disclosed dimensions, but one of ordinary skill in the art would have been led to the recited dimensions through routine experimentation and optimization. Applicant has not disclosed that the dimensions are for a particular unobvious purpose, produce an unexpected result, or are otherwise critical, and it appears prima facie that the process would possess utility using another

set of dimensions. Indeed, it has been held that mere dimensional limitations are prima facie obvious absent a disclosure that the limitations are for a particular unobvious purpose, produce an unexpected result, or are otherwise critical. See, for example, *In re Rose*, 220 F.2d 459, 105 USPQ 237 (CCPA 1955); *In re Rinehart*, 531 F.2d 1048, 189 USPQ 143 (CCPA 1976); *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984); *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966). See also MPEP 2144.04(IV)(B). With regard to the inherent insulating properties of mounts (1a and 1b), Moroi does not explicitly teach the electrode lead-throughs embedded in the mounts. Although it is implied in the Moroi reference, Kai explicitly teaches an electrode lead-through (24) embedding in a mount (32), which would inherently block the cooling gas flow so that the embedded portion are less strongly cooled than the non-embedded portions. It would have been obvious to one of ordinary skill in the art, at the time of the invention , to use the mounting technique of Kai in the lamp of Moroi, in order to secure and seal the discharge tube to the lamp (column 6, lines 61-62).

As for claims 11-15, Moroi and the mounting technique of Kai teach the at least one pair of nozzles directs the cooling gas flow substantially perpendicular/at an acute angle to the portions (Fig. 2 of Moroi) without directing the cooling gas flow toward the further portions (because the gas flow is block; see Fig. 1 of Kai).

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Moroi and Kai as applied to claim 1 above, and further in view of Narita (6,759,793).

With respect to claim 2, Moroi and Kai teach all of the claimed elements, as discussed above, except for explicitly teaching the cooling device comprises two ducts which are passed through the reflector at a mutual distance. Narita, also drawn to high pressure discharge lamps, teaches cooling device comprises two ducts (24) which are passed through a reflector (20) at a mutual distance (Fig. 3). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to use the cooling device orientation of Narita in the lamp of Moroi, in order to provide cooling without having to establish a flow path (column 6, lines 6-8). Although Moroi and Narita do not explicitly teach the dimensions of claim 2,one of ordinary skill in the art would have been led to the recited dimensions through routine experimentation and optimization. Applicant has not disclosed that the dimensions are for a particular unobvious purpose, produce an unexpected result, or are otherwise critical, and it appears prima facie that the process would possess utility using another set of dimensions. Indeed, it has been held that mere dimensional limitations are prima facie obvious absent a disclosure that the limitations are for a particular unobvious purpose, produce an unexpected result, or are otherwise critical. See, for example, *In re Rose*, 220 F.2d 459, 105 USPQ 237 (CCPA 1955); *In re Rinehart*, 531 F.2d 1048, 189 USPQ 143 (CCPA 1976); *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984); *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966). See also MPEP 2144.04(IV)(B).

***Response to Arguments***

Applicant's arguments with respect to claims 1-15 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to WILLIAM J. CARTER whose telephone number is (571)272-0959. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra L. O'Shea can be reached on (571)272-2378. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

wjc
9/11/08

/Ali Alavi/
Primary Examiner, Art Unit 2875